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JUN 23 2008

Amendments to the Drawings:

Figs. 1, 2 and 8 have been amended to provide labels for the boxes illustrated in those figures. No new matter was added by way of these amendments. Annotated sheets showing the changes made are additionally being provided herewith.

Attachment: Two (2) Replacement Sheets

Two (2) Annotated Sheets Showing Changes

Remarks:

Reconsideration of the application, as amended herein, is respectfully requested.

Claims 12 - 35 are presently pending in the application.

Claims 12, 22 and 25 have been amended. Claims 1 - 11 were previously canceled. New claims 26 - 35 have been added. As it is believed that the claims were patentable over the cited art in their previously presented form, the claims have not been amended to overcome the references.

In item 3 of the above-identified Office Action, Figs. 1, 2 and 8 of the drawings were objected to as allegedly needing the boxes to be labeled. Figs. 1, 2 and 8 have been amended, herein, to provide labels for the boxes illustrated in those figures. No new matter was added by way of these amendments. Annotated sheets showing the changes made are additionally being provided herewith.

In item 6 of the Office Action, claims 12 - 25 were objected to as allegedly being non-statutory subject matter. In item 7 of the Office Action, claims 12 - 25 were objected to as allegedly claiming a computer that solely calculates a mathematical formula. In item 8 of the Office Action, claims 12 - 25 were rejected as allegedly failing to provide a "useful, concrete or tangible result". In item 9 of the

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

Office Action, Applicant's claims were rejected as allegedly claiming an abstract idea. In item 10 of the Office Action, it was alleged that "[t]he situation in this application appears to be more difficult since it does not appear that the practical application is contained within the specification".

Applicant respectfully traverses the above rejections.

More particularly, Applicant has amended the present claims to even more clearly state the useful, tangible and concrete result of the claimed invention. More particularly, Applicant's claim 12 has been amended to recite, among other limitations:

**calculating optimized prediction values for
controlling the operative system with the aid of a set
of local prediction models thus obtained, by
determining a respectively adequate node for each new
data record and applying a local prediction model to
the data record; and**

at least one of:

**outputting at least one of the local prediction
models or optimized prediction values for display
on a visualization unit; and**

**controlling the operative system based on the
calculated optimized prediction values. [emphasis
added by Applicant]**

Similarly, Applicant's independent claim 22 has been amended to recite, among other limitations:

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

RECEIVED
CENTRAL FAX CENTER

JUN 23 2008

a prediction unit configured to use local prediction models thus obtained as a basis for calculating optimized prognosis values by determining a respectively adequate node for each new data record and to apply the local prediction model to the respective data record; and

at least one of:

a visualization unit for visually displaying at least one of the local prediction models or optimized prediction values; and

at least one control unit for controlling the operative system based on the calculated optimized prediction values. [emphasis added by Applicant]

As such, Applicant's independent claims 12 and 22 provide a useful, concrete and tangible result, i.e., at least one of:

1) outputting one of the local prediction models or optimized prediction values for display; or 2) controlling the operative system based on the calculated optimized prediction values.

Similarly, Applicant's new independent claim 26 recites, among other limitations:

automatically controlling the operative system based on the calculated optimized prediction values.
[emphasis added by Applicants]

As such, all of Applicant's claims provide a useful, concrete and tangible result. For example, the output of the local prediction models or optimized predication values for display provides a clear useful, concrete and tangible result. This display is of particular use to a user, to permit simultaneous comparison of parameters relevant to quality, as disclosed on

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

page 11 of the instant application, line 37 - page 12, line 6,
which states:

The particular type of SOM data representation then permits the visualization of all the local model parameters in an image. The safeguarding of the validity and efficiency of the entire prognosis model is simplified, accelerated and improved by the simultaneous comparison of parameters relevant to quality. [emphasis added by Applicant]

Controlling the operative system based on the calculated optimized prediction values additionally provides a clear, concrete, tangible and useful result. One such example of the useful, concrete and tangible result of the claimed invention, wherein the calculated optimized prediction values are used to control the operative system, is given on page 29 of the instant application, lines 6 - 19, which state:

The sequence described above in general is explained in more detail below in a concrete exemplary application for controlling a continuous steel casting--having the variables (x_1 to x_3): temperature T (strand shell), strand removal rate V and alloying constituent concentration K (for chromium)--, the target variable being a specific steel quality measure, that is to say the tensile strength of the steel, for example, The steel production process is optimized in this case by the routine prognosis of the steel quality (the tensile strength). **The predicted quality is used to vary the control parameters (the removal rate V in this case) continuously such that the actual tensile strength reaches the required level or quality.** [emphasis added by Applicant]

Additionally, the amendments to claims 12 and 22, as well as the above-discussed limitation of new claim 26 are supported

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

by the specification of the instant application. A visualization unit for visualizing (i.e., displaying) the results of the local predication models are disclosed, for example, on page 14, lines 4 - 6, which state:

The visualization unit 6 then displays the SOM map thus generated, and also permits visual monitoring.
[emphasis added by Applicant]

See also, for example, page 13 of the instant application, lines 12 - 15, which state:

This overall model can be represented optically by means of a visualization unit 6 and, as explained below in more detail with the aid of FIG. 8, ...
[emphasis added by Applicant]

That the optimized predication values can also be displayed is supported on page 28 of the instant application, lines 25 - 29, which state:

The optimized prognosis models and characteristics obtained are preferably also visualized, compare block 25 in FIG. 3, in order to permit additional validation of the overall model. [emphasis added by Applicant]

That the optimized predication values can be used to control the operative system is disclosed on page 13 of the instant application, lines 10 - 20, which state:

The totality of all the local linear regression models over the data sectors in combination with the SOM constitutes the optimized prognosis model. This overall model can be represented optically by means of a visualization unit 6 and, as explained below in more

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

RECEIVED
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JUN 23 2008

detail with the aid of FIG. 8, it can, if appropriate, be distributed over individual control subunits and used for the purpose of generating from current process data for the respective control units specific prognoses with regard to the process results that are then used to control these process units. [emphasis added by Applicant]

See also, for example, the illustration cited above, and on page 29 of the instant application, lines 6 - 19 (i.e., "The predicted quality is used to vary the control parameters (the removal rate V in this case) continuously such that the actual tensile strength reaches the required level or quality").

As such, Applicant's claims provide an invention having a useful, concrete and tangible result, and is not merely "[a] claim that recites a computer that solely calculates a mathematical formula", as alleged in the Office Action. Thus, Applicant's claims do not preempt an abstract idea, law of nature or natural phenomenon (per MPEP § 2106), but rather, claim an application that produces a "concrete" result. For the foregoing reasons, among others, Applicant's claims are believed to be statutory matter under 35 U.S.C. § 101.

Item 11 of the Office Action stated:

Applicant should note that no prior art has been applied to the claims i.e., no opinion is expressed by the Examiner with regard to the patentability of the claims over any art in this Office Action, since Applicant's response to the rejection under 35 U.S.C. § 101 should impact the scope and applicability of any

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

art with respect to the claims. [emphasis added by Applicant]

As such, it appears that no art was cited in the Office Action, because it was believed that Applicant's response to the 35 U.S.C. § 101 rejection will change the scope and applicability of the art. However, Applicant respectfully believes this to be an improper reason for failing to cite prior art against the present claims. More particularly, 37 C.F.R. § 1.104(b) and MPEP § 707.07 state that an examiner's action will be complete as to all matters, the only exceptions being where the Examiner determines there is "misjoinder of invention, fundamental defects in the application, and the like". That the "scope and applicability of the art" may change does not seem to fall under any of the above-listed exceptions to the completeness of an Office Action. As such, Applicant believes that 37 C.F.R. § 1.104(b) necessitated, for completeness, the citation of art against the claims, **in their current scope**, if any was found, or in the alternative, an indication that the claims were patentable over the cited art. Thus, in the event that art is cited against Applicant's claims in the next Office Action, Applicant respectfully requests that the next Office Action not be made final.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

RECEIVED
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JUN 23 2008

the features of claims 12, 22 and 26. Claims 12, 22 and 26 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 12, 22 or 26.

In view of the foregoing, reconsideration and allowance of claims 12 - 35 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Enclosed is the fee for four (4) dependent claims over the permitted twenty (20) claims. Please charge any additional fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemmer LLP, No. 12-1099.

Applic. No. 10/529,610
Response Dated June 23, 2008
Responsive to Office Action of March 21, 2008

Respectfully submitted,



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June 23, 2008

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Applic. No. 10/529,610
Reply to Office Action 03/21/2008
Amendment dated 06/23/2008
Annotated Sheet
1/6

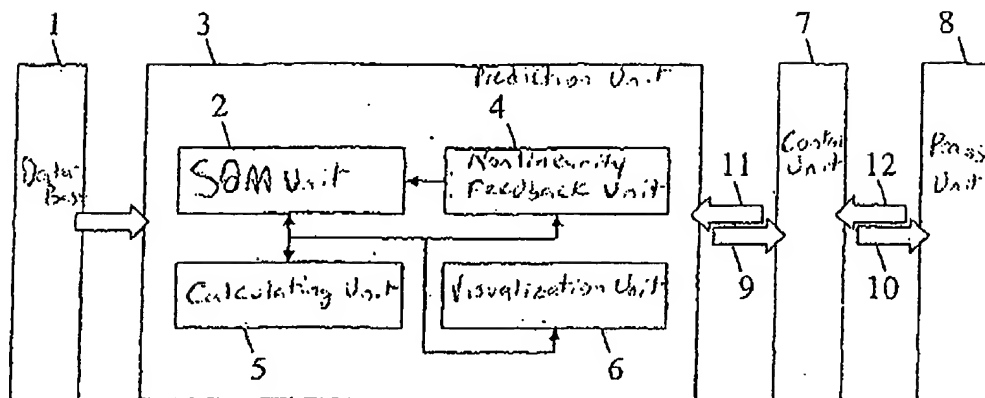


FIG. 1

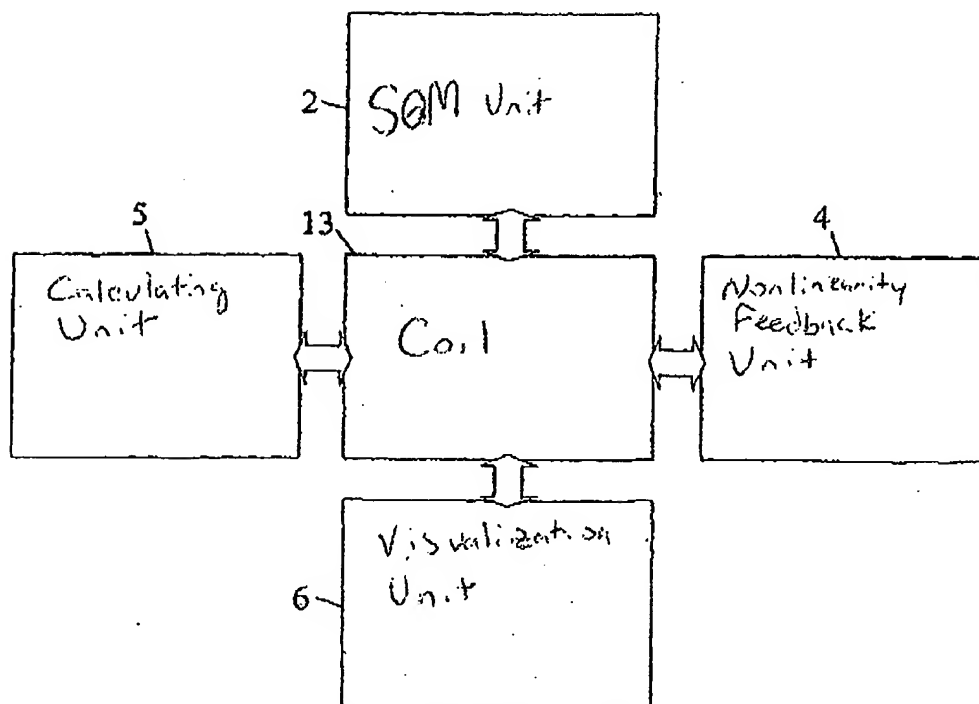


FIG. 2

Applic. No. 10/529,610
 Reply to Office Action 03/21/2008
 Amendment dated 06/23/2008
 Annotated Sheet

6/6

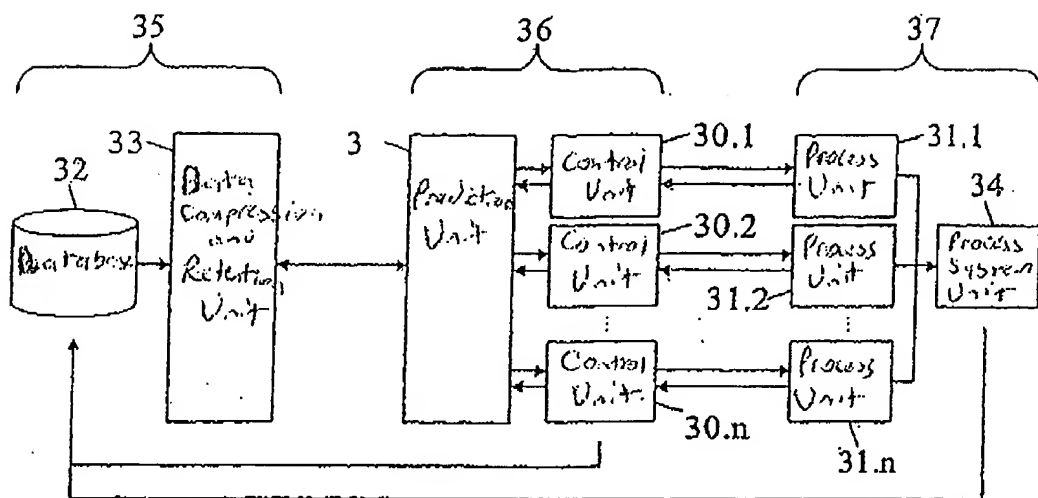


FIG. 8

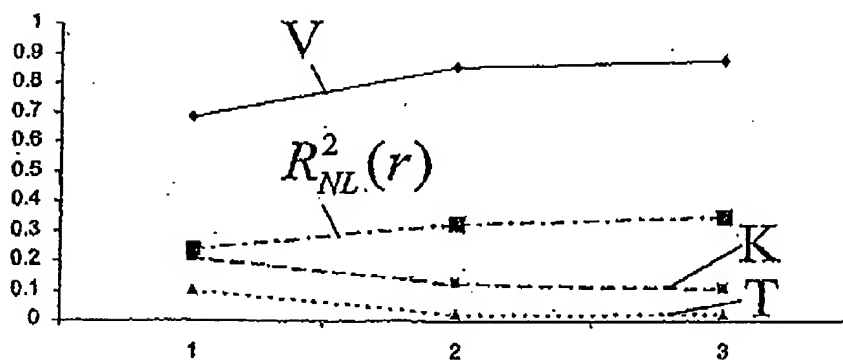


FIG. 12